

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 08.01.2015

version no: 2

Revision: 08.01.2015

SECTION 1: Identification of the substance/mixture and of the company/undertaking

. 1.1 Product identifier

. Trade name: PROTECTAN SPRAY

. Article number: 105193

. 1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

. Application of the substance / the mixture

Auxiliary product for photographic processing

Protectan protects developers and other photographic solutions against oxidation and increases stability.

. 1.3 Details of the supplier of the safety data sheet

. Manufacturer/Supplier:

TETENAL Europe GmbH

Schützenwall 31-35

D-22844 Norderstedt / Germany

Phone: ++49 (0) 40 521 45-0; Fax: +49 (0) 40-52145-296

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Phone: 0116 - 289 3644; E-Mail: uk@tetenal.com; www.tetenaluk.com

. Further information obtainable from: Department environment and safety. E-Mail: info@tetenal.com

. 1.4 Emergency telephone number: Poison Information Centre Berlin (Germany): +49 (0) 30 - 30686 790

SECTION 2: Hazards identification

. 2.1 Classification of the substance or mixture

. Classification according to Regulation (EC) No 1272/2008



GHS02

Flam. Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

. Classification according to Directive 67/548/EEC or Directive 1999/45/EC



F+; Extremely flammable

R12: Extremely flammable.

. Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Warning! Pressurised container.

. Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

. 2.2 Label elements

. Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

. Hazard pictograms



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- . **Signal word** Danger
- . **Hazard statements**
H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.
- . **Precautionary statements**
P102 Keep out of reach of children.
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P251 Pressurized container: Do not pierce or burn, even after use.
P211 Do not spray on an open flame or other ignition source.
P260 Do not breathe spray.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
- . **Additional information:**
Buildup of explosive mixtures possible without sufficient ventilation.
- . **2.3 Other hazards**
- . **Results of PBT and vPvB assessment**
- . **PBT:** Not applicable.
- . **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- . **3.2 Chemical characterisation: Mixtures**
- . **Description:** Mixture of substances listed below and with nonhazardous additions.

. **Dangerous components:**

CAS: 106-97-8 EINECS: 203-448-7 Index number: 601-004-00-0	butane	 F+ R12  Flam. Gas 1, H220; Press. Gas C, H280	50-70%
CAS: 74-98-6 EINECS: 200-827-9 Index number: 601-003-00-5	propane	 F+ R12  Flam. Gas 1, H220; Press. Gas C, H280	20-30%
CAS: 75-28-5 EINECS: 200-857-2 Index number: 601-004-00-0	and isobutane	 F+ R12  Flam. Gas 1, H220; Press. Gas C, H280	10-20%

- . **Additional information:** For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

- . **4.1 Description of first aid measures**
- . **General information:** Immediately remove any clothing/shoes soiled by the product.
- . **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- . **After skin contact:** Immediately rinse with water.
- . **After eye contact:** Rinse opened eye for several (15 min) under running water.
- . **After swallowing:** If symptoms persist consult doctor.
- . **4.2 Most important symptoms and effects, both acute and delayed**
Headache
Nausea
Disziness
- . **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- . **5.1 Extinguishing media**
- . **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.

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- . **For safety reasons unsuitable extinguishing agents:** Water with full jet
- . **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- . **5.3 Advice for firefighters**
- . **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

- . **6.1 Personal precautions, protective equipment and emergency procedures** Ensure adequate ventilation
- . **6.2 Environmental precautions:**
 - Do not allow product to reach sewage system or any water course.
 - Inform respective authorities in case of seepage into water course or sewage system.
- . **6.3 Methods and material for containment and cleaning up:**
 - Ensure adequate ventilation.
 - Do not flush with water or aqueous cleansing agents
- . **6.4 Reference to other sections**
 - See Section 7 for information on safe handling.
 - See Section 8 for information on personal protection equipment.
 - See Section 13 for disposal information.

SECTION 7: Handling and storage

- . **7.1 Precautions for safe handling**
 - Ensure good ventilation/exhaustion at the workplace.
 - Open and handle receptacle with care.
- . **Information about fire - and explosion protection:**
 - Keep ignition sources away - Do not smoke.
 - Protect against electrostatic charges.
 - Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50 °C, i.e. electric lights. Do not pierce or burn, even after use.
 - Do not spray onto a naked flame or any incandescent material.
 - Fumes can combine with air to form an explosive mixture.
- . **7.2 Conditions for safe storage, including any incompatibilities**
- . **Storage:**
 - Requirements to be met by storerooms and receptacles:**
 - Store in a cool location.
 - Observe official regulations on storing packagings with pressurised containers.
 - . **Information about storage in one common storage facility:** Store away from foodstuffs.
 - . **Further information about storage conditions:**
 - Do not seal receptacle gas tight.
 - Store in cool, dry conditions in well sealed receptacles.
 - Protect from heat and direct sunlight.
 - Store under lock and key and out of the reach of children.
 - Recommended storage temperature: 5-30 °C
- . **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- . **Additional information about design of technical facilities:** No further data; see item 7.

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. 8.1 Control parameters**. Ingredients with limit values that require monitoring at the workplace:****106-97-8 butane (50-90%)**

WEL (Great Britain)	Short-term value: 1810 mg/m ³ , 750 ppm Long-term value: 1450 mg/m ³ , 600 ppm Carc (if more than 0.1% of buta-1.3-diene)
REL (USA)	Long-term value: 1900 mg/m ³ , 800 ppm
TLV (USA)	Short-term value: 2370 mg/m ³ , 1000 ppm

74-98-6 propane (10-<25%)

PEL (USA)	Long-term value: 1800 mg/m ³ , 1000 ppm
REL (USA)	Long-term value: 1800 mg/m ³ , 1000 ppm
TLV (USA)	refer to Appendix F

75-28-5 and isobutane (10-<25%)

TLV (USA)	Short-term value: 2370 mg/m ³ , 1000 ppm
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. Additional information: The lists valid during the making were used as basis.

. 8.2 Exposure controls**. Personal protective equipment:****. General protective and hygienic measures:**

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

. Respiratory protection: Ensure adequate ventilation**. Protection of hands:**

Impervious gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

. Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Butyl rubber, BR

Nitrile rubber, NBR

Neoprene gloves

. Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

. Eye protection:

Tightly sealed goggles

. Body protection: Protective work clothing

SECTION 9: Physical and chemical properties

. 9.1 Information on basic physical and chemical properties**. General Information****. Appearance:**

Form: Aerosol

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Colour:	Colourless
Odour:	Characteristic
Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Not applicable, as aerosol.
Flash point:	-60 °C
Ignition temperature:	365 °C
Self-igniting:	Product is not selfigniting.
Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
Explosion limits:	
Lower:	1.5 Vol %
Upper:	10.9 Vol %
Vapour pressure at 20 °C:	4500 hPa
Density at 20 °C:	0.56 g/cm ³
Solubility in / Miscibility with water:	Insoluble.
Solvent content:	
Organic solvents:	100 %
9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- . **10.1 Reactivity**
- . **10.2 Chemical stability**
- . **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- . **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- . **10.4 Conditions to avoid** No further relevant information available.
- . **10.5 Incompatible materials:** No further relevant information available.
- . **10.6 Hazardous decomposition products:** Irritant gases/vapours

SECTION 11: Toxicological information

- . **11.1 Information on toxicological effects**
- . **Acute toxicity:**
- . **Primary irritant effect:**
- . **on the skin:** No irritant effect.
- . **on the eye:** No irritating effect.
- . **Sensitisation:** No sensitising effects known.

SECTION 12: Ecological information

- . **12.1 Toxicity**
- . **Aquatic toxicity:** No further relevant information available.
- . **12.2 Persistence and degradability** No further relevant information available.
- . **12.3 Bioaccumulative potential** No further relevant information available.
- . **12.4 Mobility in soil** No further relevant information available.

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- . **Additional ecological information:**
- . **General notes:**
Do not allow product to reach ground water, water course or sewage system.
Generally not hazardous for water
- . **12.5 Results of PBT and vPvB assessment**
- . **PBT:** Not applicable.
- . **vPvB:** Not applicable.
- . **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- . **13.1 Waste treatment methods**
- . **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

. **European waste catalogue**

07 07 04	other organic solvents, washing liquids and mother liquors
15 01 10	packaging containing residues of or contaminated by dangerous substances
15 01 04	metallic packaging

- . **Uncleaned packaging:**
- . **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- . **14.1 UN-Number**
- . **ADR, IMDG, IATA** UN1950
- . **14.2 UN proper shipping name**
- . **ADR** 1950 AEROSOLS
- . **IMDG** AEROSOLS
- . **IATA** AEROSOLS, flammable

. **14.3 Transport hazard class(es)**

. **ADR**



- . **Class** 2 5F Gases.
- . **Label** 2.1

. **IMDG, IATA**



- . **Class** 2.1
- . **Label** 2.1

- . **14.4 Packing group**
- . **ADR, IMDG, IATA** Void

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. 14.5 Environmental hazards:. **Marine pollutant:** No**. 14.6 Special precautions for user**

Warning: Gases.

. **Danger code (Kemler):**

-

. **EMS Number:**

F-D,S-U

. 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

. Transport/Additional information:**. ADR**. **Limited quantities (LQ)**

1L

. **Excepted quantities (EQ)**

Code: E0

Not permitted as Excepted Quantity

. **Transport category**

2

. **Tunnel restriction code**

D

. IMDG. **Limited quantities (LQ)**

1L

. **Excepted quantities (EQ)**

Code: E0

Not permitted as Excepted Quantity

. **UN "Model Regulation":**

UN1950, AEROSOLS, 2.1

SECTION 15: Regulatory information**. 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

No further relevant information available.

. **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

. Relevant phrases

H220 Extremely flammable gas.

H280 Contains gas under pressure; may explode if heated.

R12 Extremely flammable.

. **Contact:** e-mail: sida@tetenal.com**. Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

Flam. Gas 1: Flammable gases, Hazard Category 1

Flam. Aerosol 1: Flammable aerosols, Hazard Category 1

Press. Gas C: Gases under pressure: Compressed gas

. *** Data compared to the previous version altered.**